

The background of the slide is a solid dark orange color, overlaid with a pattern of stylized, semi-transparent autumn leaves in various shades of orange and brown. The leaves are scattered across the frame, creating a textured, seasonal feel.

AIR POLLUTION AND SMOKING



Air Pollution



WHAT IS AIR POLLUTION ?

AIR POLLUTION is the introduction of chemicals, particulate matter, or biological materials that cause harm or discomfort to humans or other living organisms, or cause damage to the natural environment, into the atmosphere.

Six common pollutants

- ❑ Carbon Monoxide (CO)
- ❑ Nitrogen Dioxide (NO_2)
- ❑ Sulphur Dioxide (SO_2)
- ❑ Ammonia (NH_3)
- ❑ Ozone (O_3)
- ❑ Particulate Matter- Dust, Smoke, Fly Ash



CLASSIFICATION OF AIR POLLUTANTS

□ PRIMARY AIR POLLUTANTS:

The poisonous gases and undesirable chemicals which cause air pollution.

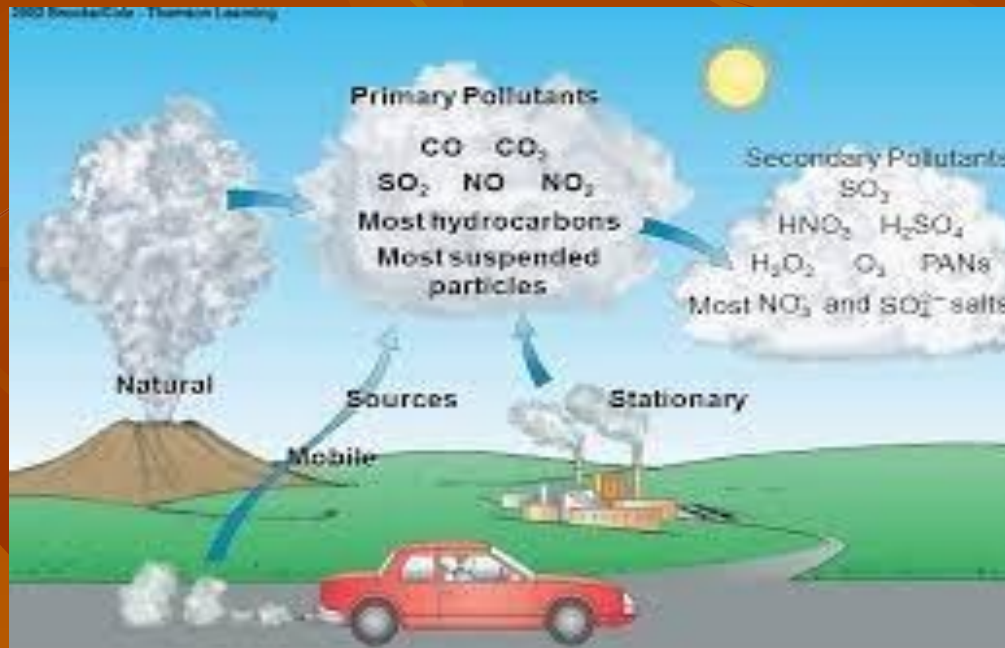
eg: carbon particles from unburned fuel, NH_3 , SO_2 , Hydrocarbons, oxides of nitrogen, oxides of carbon, lead.

□ SECONDARY AIR POLLUTANTS:

Derived from primary Air Pollutants.

eg: Ozone, peroxides, smog etc.

□ CLASSIFICATION OF AIR POLLUTANTS



SOURCES OF AIR POLLUTIONS

NATURAL

Natural contaminants(fungi, spores, cysts, bacteria, methane, dust, etc).

Carbon monoxide from Methane Gas

Volcanic Eruptions

Forest fires

Electric storms and solar flares

Salt spray from oceans

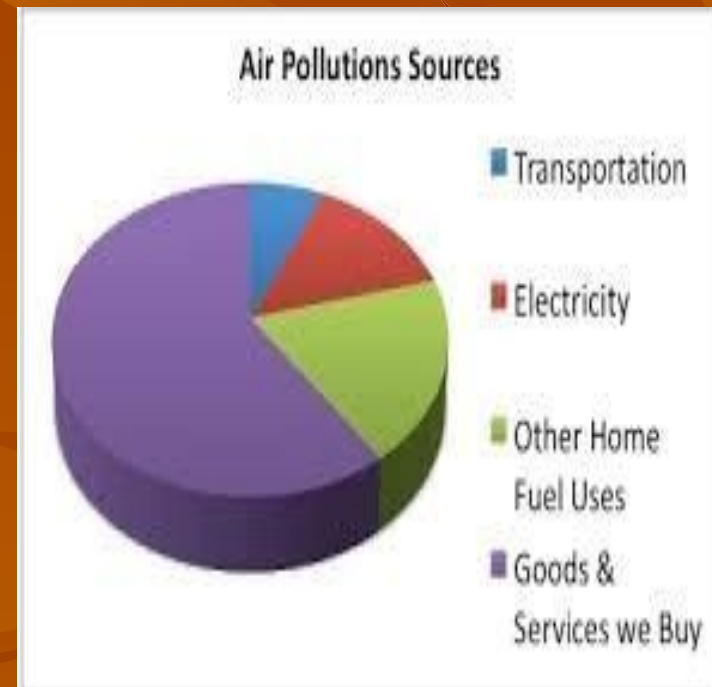
Dust and storms

MAN MADE

Rapid industrialization

Automobile Revolution

Deforestation



CAUSES OF AIR POLLUTION

- *Dust raised on the ground during dust storms.*
- *Stone dust raised by crushing of stones in quarries.*
- *Smoke emitted by vehicles.*
- *Smoke from forest fires.*
- *Smoke raised by burning of coal in powerhouses.*
- *Burning of wood, cow dung cakes, garbage etc.*
- *Germ from coughing and sneezing.*

EFFECTS OF AIR POLLUTION

ON HUMAN HEALT

Short term effects:

- *Irritation to the nose, eye and throat.*
- *Upper respiratory infections.*
- *Headache, nausea and allergic reactions.*
- *Asthma and Emphysema.*

Long term effects:

- *Chronic respiratory diseases.*
- *Lung cancer.*
- *Heart diseases.*
- *Damage to the brain, nerves, liver or kidneys.*

The adverse effects of air pollutants on lung depend upon a few variable that include:

- i. Longer duration of exposure;
- ii. Total dose of exposure
- iii. Impaired ability of the host to clear inhaled particles; and
- iv. Particle size of 1-5mm capable of getting impacted in the distal airways to produce tissue injury.

Control of Air Pollution

- Planting more trees
- Reducing vehicles exhausts
- Using less polluting fuels
- Using mass transport
- Removal of particulate matter using electrostatic precipitator, cyclone filter, etc.
- Industrial area should be cited far away from residential area.
- Suitable chemical methods applied to remove hydrocarbons
- Multi stage combustion process – suggested to remove oxides of nitrogen.

SMOKING

Smoking is defined as the action or habit of inhaling and exhaling the smoke of tobacco or a drug, it emits smoke or visible vapour.

EFFECTS OF SMOKING ON AIR POLLUTION:

The **air pollution** emitted by cigarettes is 10 times greater than diesel car exhaust, suggests a controlled experiment, reported in Tobacco Control. Environmental tobacco **smoke** produces fine particulate matter, which is the most dangerous element of **air pollution** for health.

3 million
cigarettes a minute.



10 million
worldwide.



15 billion
are sold each day,



and upwards of
5 trillion
are produced and used
on an annual basis.



EFFECTS OF SMOKING ON OUR HEALTH

- ☐ Smoking compromises the immune system, making smokers more likely to have respiratory infections.
- ☐ Smoking is one of the main factor that increase the risk for osteoporosis, a condition in which bones weaken and become more likely to fracture.
- ☐ The chemicals in tobacco smoke harm your blood cells and damage the function of your heart which increase the risk of Atherosclerosis, Aneurysms, CVD and etc.

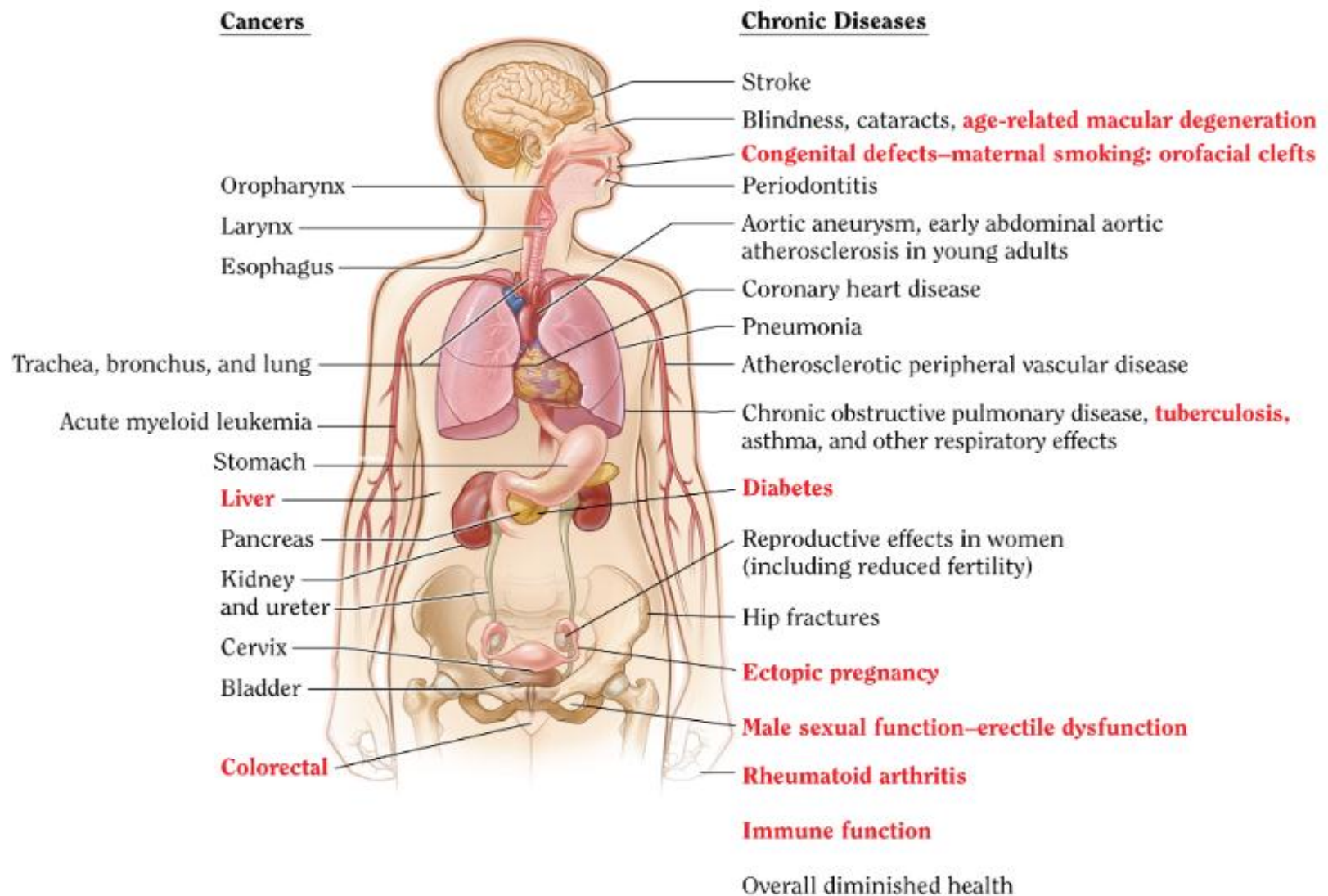
- Every cigarette you smoke damages your breathing and scars your lungs, it causes COPD, Emphysema, Chronic bronchitis, Pneumonia, Asthma, Tuberculosis.
- Smoking increases the risk of developing age-related macular degeneration, cataract, optic nerve damage and all which leads to blindness.
- Smoking cigarette is the number one risk factor for lung cancer, it cause cancer in the lungs, trachea, bronchus, esophagus and different organs in our body.

“Cigarette smoking is the chief, single, avoidable cause of death in our society and the most important public health issue of our time.”

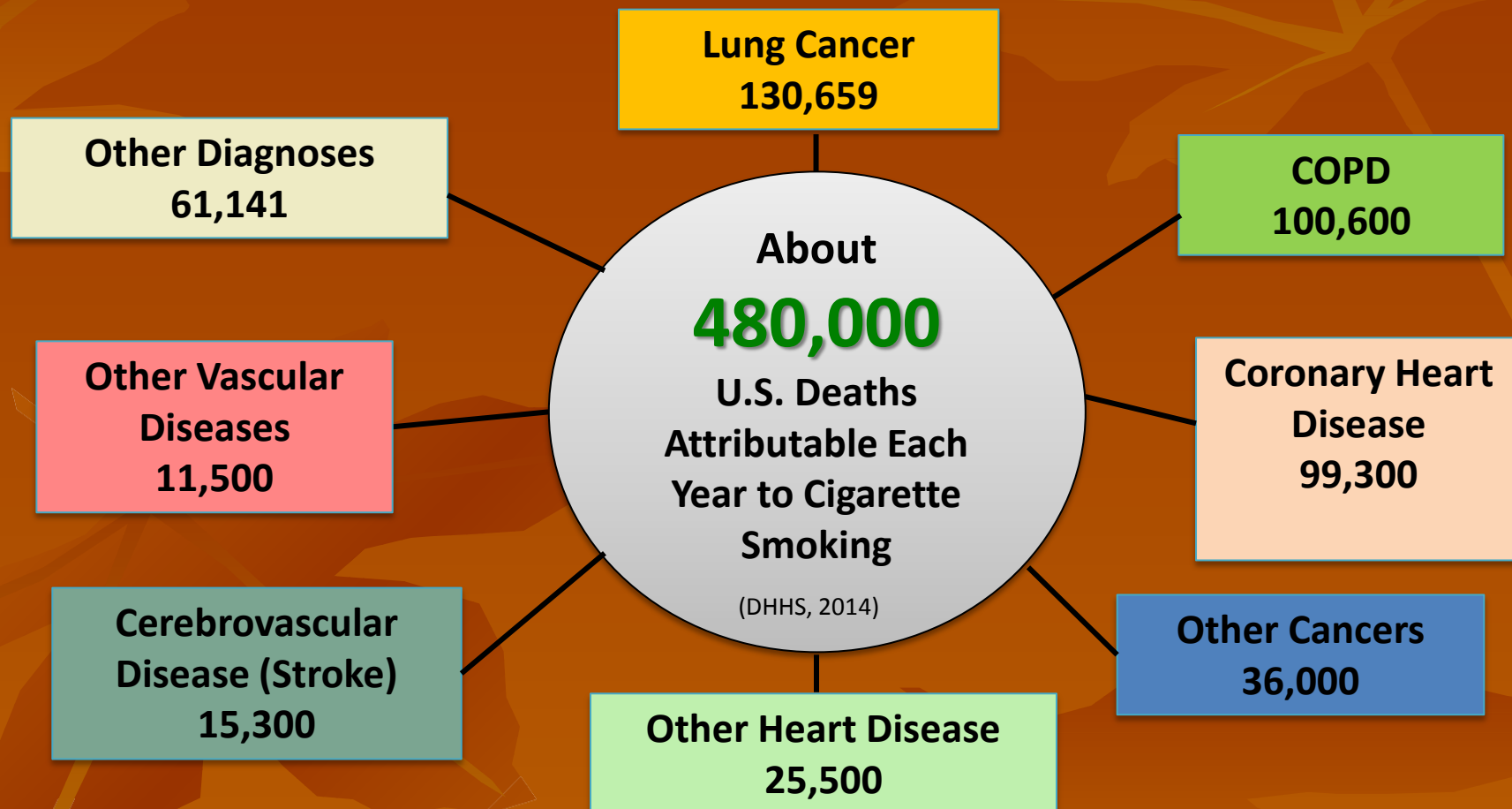


*~C. Everett Koop, M.D.
former U.S. Surgeon General*

Effects of Smoking



U.S. Deaths Attributable to Smoking Annually



Secondhand and Third-Hand Smoke



Second hand smoking

Inhalation of smoke from tobacco products by people other than the intended user

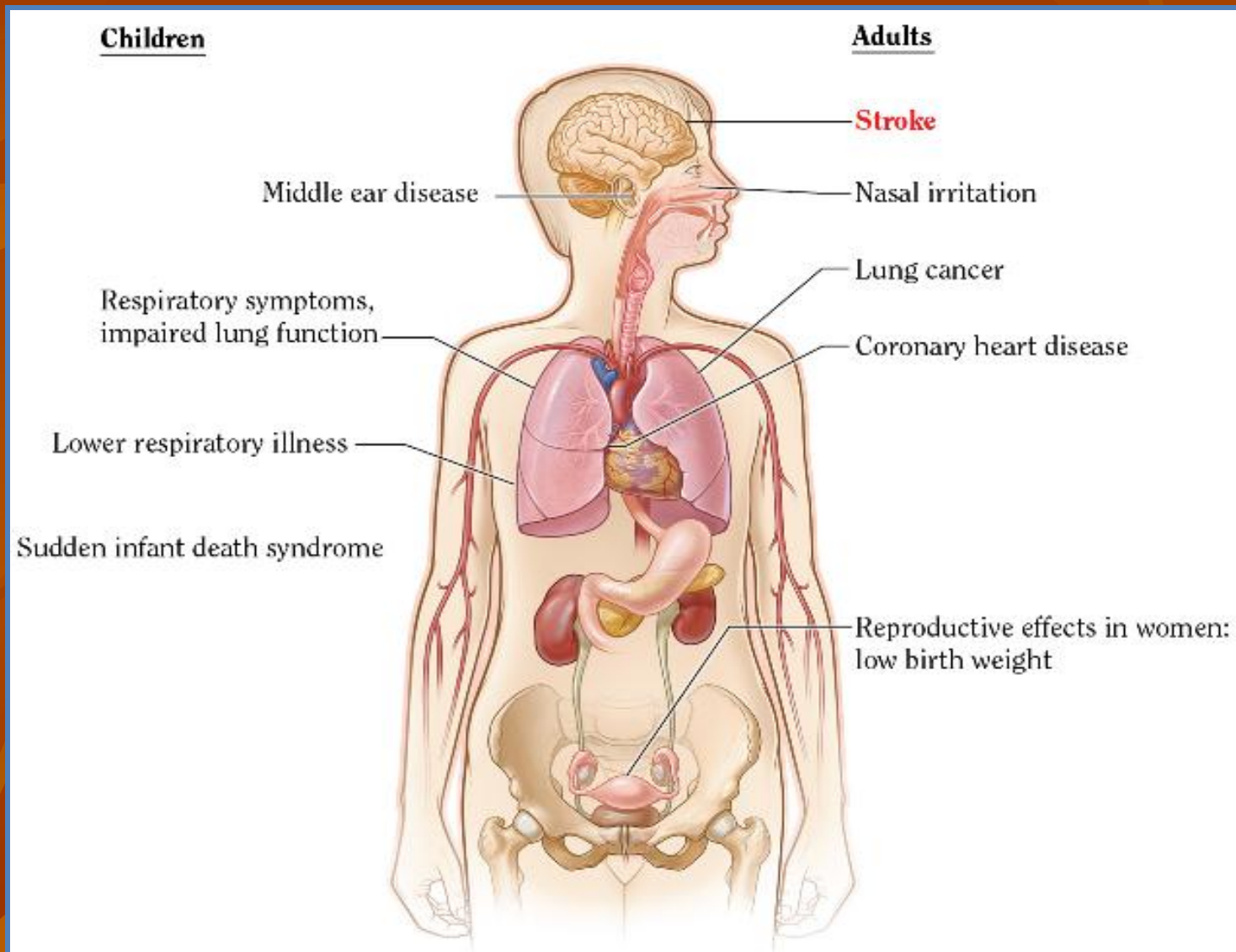
Secondhand smoke has been found to cause heart and lung disease in *non-smoking* adults

Annually:

33,950 deaths due to heart disease

7,330 deaths due to lung cancer

Effects of Secondhand Smoke Exposure



What is Third-hand Smoke


- The persistence of tobacco smoke pollutants in dust and on surfaces after tobacco has been smoked.
 - The residues of third-hand smoke can linger on the skin, clothes, and furniture of individuals who smoke.
- Pollutants can remain in the environment for weeks to months after the act of smoking occurs.
- Three main exposure routes to Third-hand smoke:
 - Involuntary inhalation
 - Ingestion
 - Dermal uptake

- Pets are also highly affected by second & third-hand smoke, particularly if they spend most of the time indoors.



Solutions

- Nicotine gum
- Advertisements on risk of smoking
- Increase price of cigarettes
- Age limits for purchasing cigarettes
- Warning labels
- Awareness campaigns



If You have Family
Members who
Smoke...

- 12 Tips to Help a Loved One Quit:
 1. Understand that quitting is hard
 2. Know your relationship style
 3. Start the conversation
 4. Ask questions
 5. Listen
 6. Don't lecture
 7. Offer distractions
 8. Be patient and positive
 9. Don't be too hard on them if they slip
 10. Celebrate successes (big and small)
 11. Help them de-stress
 12. Be there for the long haul

Whether or not someone is ready to quit using tobacco, there are some strategies you, as a family member or friend, can use to encourage them to begin thinking about making a quit attempt or to support their decision to quit

These strategies can be simplified into the “4
E’s”:

Engage

Educate

Encourage

Empathize

Engage

Start a caring and respectful conversation. Express your concerns about their smoking.

Allow them to express to you what they enjoy about smoking and their fears about quitting.

If they are prepared to quit, ask how you can help them reach their smoke-free goal and let them know you will give them the support they need.

Otherwise, continue to listen!

Educate

Rather than focus on risks and dangers of smoking, help them see the benefits of quitting:

- Improvements in health

- Improvements in physical appearance

- Save money

- Freedom from the addiction

You may also want to make them aware of how secondhand smoke can affect other family members, including pets!

confidence

- Express confidence in their ability to quit smoking.
- Congratulate them on any progress they make—big or small!
- If they make a quit attempt, celebrate their progress along the way.
- If the person begins smoking again (lapse or relapse), encourage them to try again, and praise them for their effort in each and every attempt until it sticks!

empathize

Imagine the magnitude of the challenge facing the person who is interested in or trying to quit, and be patient with them as they struggle to overcome their addiction.

Remember, they may truly enjoy parts about their smoking and this is a major lifestyle change for them.

The background of the slide is a solid dark orange color, overlaid with a pattern of stylized, lighter orange leaves. The leaves are of various shapes and sizes, some with prominent veins, creating a textured, autumnal effect. The text "THANK YOU" is centered in the middle of the slide in a bold, white, serif font.

THANK YOU